

POLYOLS FOR BREAKING OF FRACTURING FLUID

Abstract of the Disclosure

It has been discovered that fracturing fluid breaker mechanisms are improved by the inclusion of a polyol alone that directly degrades the polysaccharide backbone, and optionally additionally by removing the crosslinking ion, if present. That is, viscosity reduction (breaking) occurs by breaking down the chemical bonds within the backbone directly, rather than by merely removing the crosslinking ion, if present. The gel does not have to be crosslinked for the method of the invention to be successful, although it may be crosslinked. In one non-limiting embodiment, the polyol has at least two hydroxyl groups on adjacent carbon atoms. In another embodiment, the polyols are monosaccharides such as glycerols and sugar alcohols, and may include mannitol, sorbitol, glucose, fructose, galactose, mannose, lactose, maltose, allose, etc. and mixtures thereof.

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